

APPENDIX C
PHOTOGRAPH LOG

Photograph Log
Pacific Refining Wharf and Pipelines Decommissioning Project
El Paso Corporation
Hercules, California



Photo 1: Disconnected Pipelines Onshore

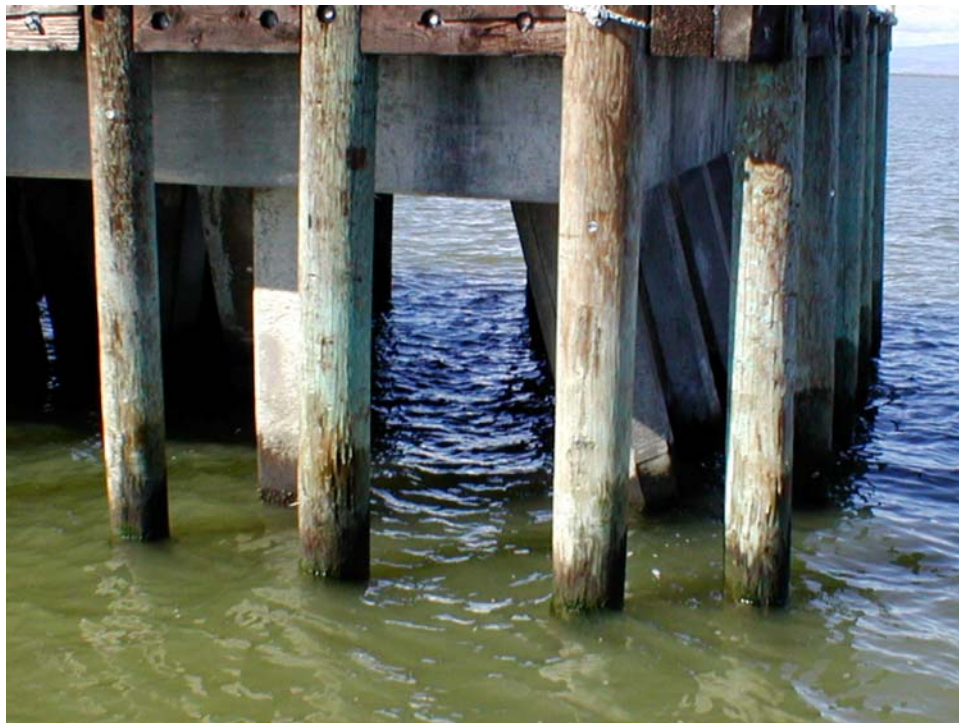


Photo 2: Pilings Protecting Structure from Vessel Impact

Photograph Log
Pacific Refining Wharf and Pipelines Decommissioning Project
El Paso Corporation
Hercules, California



Photo 3: Equipment Remaining on Wharf (View A)



Photo 4: Equipment Remaining on Wharf (View B)

Photograph Log
Pacific Refining Wharf and Pipelines Decommissioning Project
El Paso Corporation
Hercules, California



Photo 5: Central Platform as viewed from Water (View A)



Photo 6: Central Platform (right side of photo) as viewed from Water (View B)

APPENDIX D
MARINE SURVEY REPORT
(NOTE: PROVIDED IN ATTACHMENT E OF THE LEASE
APPLICATION)

APPENDIX E
ASBESTOS MANAGEMENT PLANS

APPENDIX E1
ASBESTOS IN CONSTRUCTION MATERIALS

1005 ASBESTOS IN CONSTRUCTION MATERIALS

I. PURPOSE

It is the policy of MWH to ensure a safe working environment for every employee. In keeping with this policy, the company has established a program to identify asbestos-containing materials, evaluate hazard potential, and, whenever required, remove asbestos that poses health and/or environmental hazards.

II. DISCUSSION

Asbestos is a mineral fiber found in rocks. Asbestos fibers are fire-resistant and not easily destroyed or degraded by natural processes.

In construction materials, asbestos was used for fire protection and for insulation, especially before 1979. Asbestos-containing building materials included floor tiles, patching compounds, textured paints, acoustic ceiling materials, heating insulation, pipe coverings, fire doors, roofing materials, and siding.

III. PROCEDURE

A. HEALTH HAZARDS

Asbestos presents a health hazard only if fibers are inhaled or swallowed. Some asbestos can break into fibers that are too small to see. This happens when asbestos-containing construction materials are disturbed or damaged so that fibers get loose.

These small fibers can be inhaled or sometimes swallowed. When this happens, the asbestos fibers become lodged in tissue. After many years these embedded fibers may cause lung cancer, mesothelioma (cancer of the lining of the lung or abdominal cavities), or asbestosis (a permanent lung condition that makes breathing difficult).

If asbestos-containing materials are not damaged or disturbed, the fibers cannot become airborne. If fibers do not become airborne, they are not inhaled. If they are not inhaled or swallowed, there is no health hazard.

B. ASBESTOS AND CIGARETTE SMOKING

Cigarette smokers face special hazards when exposed to airborne asbestos fibers. This exposure, combined with cigarette smoking, has been shown to cause a greater risk of lung cancer than the risk of cancer from smoking or working with asbestos alone.

C. ASBESTOS AND OTHER HEALTH PROBLEMS

Asbestos does not usually cause skin rashes, headaches, irritation of the eyes, nose, or throat, or any other health problem. The illnesses that are caused by asbestos do not appear until many years (10 to 20 or more) after exposure. However, if asbestos fibers are imbedded in the lungs, it may be possible to detect some changes in the tissues. These changes are detected by special medical tests.

D. DETECTION OF ASBESTOS IN WORK AREAS

There is no way for the employee to determine which materials may contain asbestos. Special laboratory analysis is necessary to accurately identify asbestos containing materials. Trained personnel collect samples and conduct these tests.

E. ASBESTOS IN WASTE

Asbestos must be disposed as hazardous waste. It cannot simply be “thrown out.”

F. PROTECTING AGAINST ASBESTOS EXPOSURE

Employees can protect themselves against exposure to asbestos construction materials by observing the following rules.

1. **Comply with any posted signs.** Reduce the possibility of exposure to asbestos in building materials by complying with posted warnings that say:
Cancer and Lung Disease Hazard. Do Not Disturb Building Materials Without Proper Training and Equipment.
2. **Ask questions.** Watch for construction or remodeling that involves such activities as removal of vinyl tiles, ceiling materials, pipe lagging, oven insulation, or that are creating dust. Ask if these activities have been investigated for asbestos exposure. Contractors and/or employees performing these activities may not be informed about asbestos-containing materials.
3. **Call Health & Safety.** If you have questions or want to report activities, call your Health & Safety Coordinator or the Health & Safety Manager.
4. **Do not handle.** If you suspect that you have found some asbestos, do not handle it. Do not pick it up, sweep it up, or vacuum. If you have an appliance or oven with frayed insulation, do not disturb it. If you suspect that there is asbestos in any construction material that you are using, do not bore, sand, plane, saw, scrape, or in any other way disturb the material. Contact your supervisor.

G. RESPONSIBILITIES

1. Employees

Employees are responsible for taking the appropriate steps to protect themselves against asbestos exposure, including:

- Complying with posted signs.
- Avoiding contact with any suspected asbestos-containing materials.
- Asking questions when concerned about activities that could lead to asbestos exposure.

2. Supervisors

- Ensuring that their employees comply with posted signs.
- Asking questions when concerned about activities that could lead to asbestos exposure. Notifying the Health and Safety Manager.

APPENDIX E2
ASBESTOS ABATEMENT PLAN

1006 ASBESTOS HAZARD ABATEMENT

I. PURPOSE

To establish guidelines for Montgomery Watson (Montgomery) staff and subcontractors for work involving the abatement of asbestos-containing materials.

This document is of a general nature, and does not address specific abatement actions. Upon identification of an abatement action, a site-specific safety and health plan (SSHP) will be developed and tailored to address the hazards and requirements of the action.

II. REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

A. UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (Oct 1992) Safety and Health Requirements Manual

EP-1110-1-11 (July 1992) Asbestos Abatement Guideline Detail Sheets

B. AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

Pub #4545 (1991) OSHA Analytical Methods Manual

C. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z9.2 (1979; R 1991) Fundamentals Governing the Design and Operation of Local Exhaust Systems

ANSI Z87.1 (1989; Errata Z87.1A) Occupational and Educational Eye and Face Protection

ANSI Z88.2 (1992) Practices for Respiratory Protection

D. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 732 (1982; R 1987) Aging Effects of Artificial Weathering on Latex Sealants

ASTM D 522 (1988) Mandrel Bend Test of Attached Organic Coatings

ASTM D 1331 (1989) Surface and Interfacial Tension of Solutions of Surface-Active Agents

ASTM D 2794 (1990) Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)

ASTM D 4397 (1984; R 1989) Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications

ASTM E 84 (1989a) Surface Burning Characteristics of Building Materials

ASTM E 96 (1990) Water Vapor Transmission of Materials

ASTM E 119 (1988) Fire Tests of Building Construction and Materials

ASTM E 736 (1986) Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members

ASTM E 1368 (1990) Visual Inspection of Asbestos Abatement Projects

E. CODE OF FEDERAL REGULATIONS (CFR) S(TATE- and LOCAL) REGULATIONS ARE INCLUDED BY REFERENCE

29 CFR 1910 General Industry Safety Orders

29 CFR 1926 Construction Safety Orders

29 CFR 1926.1101 Construction Safety Orders, Asbestos Materials

40 CFR 61 National Emissions Standards for Hazardous Air Pollutants

40 CFR 763 Asbestos Hazard Emergency Response Act and 1992 Reauthorization

F. COMPRESSED GAS ASSOCIATION (CGA)

CGA G-7 (1990) Compressed Air for Human Respiration

CGA G-7.1 (1989; 3rd Ed) Commodity Specification for Air

G. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA 560/5-85-024 (1985) Guidance for Controlling Asbestos Containing Materials in Building

EPA 340/1-90-018 (1990) Asbestos/NESHAP Regulated Asbestos
Containing Materials Guidance

EPA 340/1-90-019 (1990) Asbestos/NESHAP Adequately Wet
Guidance

H. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (1990) Portable Fire Extinguishers

NFPA 70 (1993) National Electrical Code

NFPA 90A (1989) Installation of Air Conditioning and Ventilating
Systems

NFPA 101 (1992) Safety to Life from Fire in Buildings and
Structures

NFPA 701 (1989) Methods of Fire Test for Flame-Resistant Textiles
and Films

I. NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND
HEALTH (NIOSH)

NIOSH-01 (1991) Manual of Analytical Methods

J. UNDERWRITERS LABORATORIES (UL)

UL 586 (Oct 18, 1990; 7th Ed) High-Efficiency, Particulate, Air
Filter Units

III. DISCUSSION

- A. Asbestos is a common mineral found in many building materials. When asbestos is disturbed, such as by construction, maintenance, or damage, it releases airborne fibers. Inhalation of these fibers can lead to respiratory disease (asbestosis) or cancer (mesothelioma and lung cancer). A high incidence of these diseases is well-documented in industries where workers have long-term asbestos exposure, such as shipyard workers, plumbers, sprayed fireproofing installers, etc.
- B. Because of its widespread use and carcinogenic nature, asbestos is highly regulated. Removal or repair of asbestos must be performed by personnel with special training and equipment. Disposal of asbestos waste must be performed only at specialized landfills. For older structures, disturbance or demolition of building materials must be preceded by a comprehensive asbestos survey.

IV. POLICIES & PROCEDURES

It is the policy of Montgomery to comply at all times with the requirements of the Federal OSHA and EPA asbestos standards, including treating suspect asbestos-containing material (ACM) as presumed asbestos-containing material (PACM) until sampling is performed to confirm or refute asbestos content. Montgomery will utilize an independent CIH (with State-required certification and AHERA training) to oversee and conduct clearance sampling on asbestos abatement projects.

A. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Selection and use of personal protective equipment varies, depending upon the nature of the abatement work to be performed. The table below shows typical requirements.

Summary of Respiratory Protection for Abatement Class Activities

	Abatement Class I	Abatement Class II	Abatement Class III	Abatement Class IV
Activities:	Removal of TSI or surfacing material that is ACM or PACM	Removal of ACM, not including TSI or surfacing material (e.g. wallboard, flooring, roofing, siding, gaskets and mastic)	Repair and maintenance of small amounts of TSI or surfacing ACM or PACM (not exceeding one 60" glovebag or waste bag)	Maintenance and custodial activities contacting ACM or PACM (including clean-up of ACM or PACM dust and debris)

Minimum Requirement for Respiratory Protection:	Powered Air Purifying Respirator with full face mask and Type H cartridges or Supplied Air Respirator system	Same as for Class I or downgrade to half-face negative pressure air purifying respirator, if this downgrade is justified by personal air sampling results.	Same as for Class I or half-face negative pressure air purifying respirator	Same as for Class I or half-face negative pressure air purifying respirator
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Full Body Clothing: Workers shall wear hoods covering their hair in the designated work areas at all times. Workers will not wear protective clothing in lieu of street clothing outside the work area, and will leave non-disposable-type protective clothing and footwear in the wash room until the end of the asbestos abatement work.

Eye Protection: Montgomery will provide eye protection to be worn as required by applicable safety regulations. Eye protection will be at all times within the asbestos work areas during all phases of work. A full face piece respirator may be worn to satisfy this requirement. Equipment shall conform with ANSI Z87.1-1979. Use of contact lenses with respiratory protection is prohibited.

Head Protection: Montgomery will provide hard hats or other head protection as required by applicable safety regulations, conforming with ANSI Z89.1-1981, Class A or B.

Foot Protection: Montgomery will provide non-skid footwear to all abatement workers, conforming to ANSI Z41.1-1983, Class 75.

B. LOCATION OF ASBESTOS REGULATED WORK AREAS

The location of regulated work areas will be shown on a Figure attached to the SSHP.

C. LOCATION OF ACCESS TUNNELS AND DECONTAMINATION FACILITIES

The location of decontamination facilities, access tunnels, wash rooms, etc. will be shown on a Figure attached to the SSHP.

D. ABATEMENT METHOD

Abatement methods shall be selected by personnel with current AHERA Project Designer training and licensed to perform such services in the

state where the work is occurring. Abatement methods shall be selected based upon regulatory requirements, cost-effectiveness, and compatibility with other activities in the building.

A summary of Federal OSHA regulatory requirements is listed below. In general, these requirements are in compliance with other regulatory agencies (particularly local air pollution control districts) as well.

**Summary of Asbestos Abatement Methods and Engineering Control
Procedures for Abatement Class Activities**

	Abatement Class I	Abatement Class II	Abatement Class III	Abatement Class IV
Abatement Methods and Engineering Control Procedures:	Negative pressure enclosure; glovebag system; negative pressure glovebag; glove box; water spray system; and/or mini-enclosures	Specific to material removed (examples include VAT; roofing; and transite shingles)	Glovebag, and/or mini-enclosure	N/A (incidental cleaning)

Detailed descriptions of abatement methods will be created for specific abatement projects. Army Corps of Engineers Detail Sheets will be used where applicable.

E. INITIAL EXPOSURE ASSESSMENT

1. Montgomery will ensure that a "competent person" conducts an exposure assessment immediately before or at the initiation of each abatement operation to ascertain expected exposures during that operation. The assessment will be completed and the results submitted in the Asbestos Hazard Abatement Plan for the project.
2. The initial exposure assessment will be used to identify which asbestos jobs are likely to exceed the PEL, and to determine feasible control measures to be used prior to beginning the abatement work.
3. An initial exposure assessment is required for all projects, even where Montgomery is planning to install full negative pressure enclosures with HEPA-filtered exhaust systems. This will insure that the "competent person" has reviewed the success of controls on past projects in order to evaluate the planned controls for the for the current project.

4. The assessment will review relevant controls and conditions, i.e. factors that influence the degree of exposure, including:
 - a. the degree and quality of supervision and of employee training;
 - b. techniques used for wetting the ACM in the various circumstances encountered;
 - c. placing and repositioning the HEPA filtration equipment; and
 - d. impacts due to weather conditions.
5. It is critical that the assessment be based on the competent person's review of all aspects of Montgomery's performance doing similar jobs. In order for past air sampling data to be used, the samples must have been collected while using similar controls, and where the work was supervised and performed by the same or similarly trained and experienced personnel.
6. Montgomery will monitor employees' personal exposures, in order to verify the adequacy of controls being used, and to provide data for future projects initial exposure assessments.
7. The assessment may conclude that exposures are likely to be consistently below the PELs only as a conclusion of a "negative exposure assessment". Negative exposure assessments:
 - a. Apply where Montgomery has monitored prior asbestos jobs for the PEL and the excursion limit within 12 months of the current or projected job; and
 - b. the monitoring and analysis were performed in compliance with 29 CFR 1926.1101; and
 - c. the data were obtained during work operations conducted under workplace conditions "closely resembling" the processes, type of material, control methods, work practices, and environmental conditions used and prevailing for the current abatement; and
 - d. the operations were conducted by employees whose training and experience were no more extensive than that of employees performing the current job; and
 - e. these data show that under the conditions prevailing and which will prevail in the current workplace there is a high degree of certainty that employee exposures will not exceed the TWA and excursion limit.

8. Alternately, the results of initial exposure monitoring of the current job can be used, if they are representative of the operations which are most likely during the performance of the entire job. During the period of time when the initial exposure monitoring is being conducted, Montgomery staff will use all personal protective equipment and control methods required for the type of abatement being conducted.

F. LEVEL OF SUPERVISION

Montgomery will set the following minimum standards for supervision on asbestos abatement projects:

1. All projects shall have a designated Supervisor, who shall remain at the project site at all times that work is being conducted.
2. The Supervisor shall be a Competent Person (as defined by OSHA Regulation 29 CFR Part 1926.1101 and Cal/OSHA Regulation 8 CCR Section 1529):
3. The Supervisor will have successfully completed a 5-day EPA approved course for AHERA Contractor/Supervisor, and shall have experience in supervision of asbestos abatement projects including work practices, protective measures for buildings and personnel, disposal procedures, etc.; and other requirements as specified under by OSHA under CFR Title 29, Section 1926.1101 and by DOSH under CCR Title 8, Section 1529, and any additional state or local licensing requirements.
4. Minimum Experience: The Supervisor will have participated in at least two projects of comparable complexity with this project.
5. All projects will also have a designated Foreman to directly supervise and coordinate abatement workers. The Foreman will have training and knowledge of applicable regulations and expertise in safety and environmental protection and shall have successfully completed a 5-day EPA approved course for AHERA Contractor/Supervisor. The Foreman will have experience with abatement work as evidenced through participation in at least two asbestos abatement projects of comparable complexity with this project.

G. METHOD OF NOTIFICATION OF OTHER EMPLOYERS AT THE WORKSITE

Montgomery will use one or more of the following methods of informing other employers:

1. Written notices, delivered by US Mail or equivalent means, describing the asbestos hazard and specifying times and locations that asbestos regulated areas are anticipated to be established.
2. Written notices, posted in a prominent location at the jobsite.
3. Written notices contained in contract documents supplied to subcontractors on the project.

H. INTERFACE OF TRADES INVOLVED IN THE CONSTRUCTION

Montgomery anticipates the following trades to be involved on a given project, with roles as described below. Interface and coordination of the trades will generally occur in weekly jobsite meetings, with daily meetings held as needed by onsite Supervisors of each trade.

Trade	Role	Note
Asbestos Abatement (AA)	Removal of asbestos, management of asbestos hazards	
Lead-Based Paint Abatement (LBPA)	Removal of lead-based paint, management of lead-based paint hazards	May be same firm as AA or different firm; similar coordination issues.
Demolition (DC)	Removal of nonhazardous materials	May precede AA contractor while doing “soft demolition”; and may follow AA contractor after abatement is completed
Electrical (EC)	Deactivation of electricity within abatement area; and Installation of GFI panels for AA use	
Plumbing (PC)	Installation of decontamination chamber shower plumbing for occupied buildings requiring hard plumbing.	
Mechanical (MC)	Deactivation and isolation of mechanical systems serving the asbestos abatement work area.	
General (GC) and various subs	Buildback of building systems removed by demolition and/or abatement.	Typically provides support to AA, such as partition construction, coordination of staging areas, etc.

I. SEQUENCING OF ASBESTOS-RELATED WORK

Where necessary for scheduling or occupancy reasons, Montgomery will phase the abatement work, separating off abatement areas from other areas by means of temporary hard partitions or polyethylene barriers.

For a typical full enclosure work area, the sequence of events is as follows (note that this sequence will vary with individual work zones):

1. Work Area Preparation:
 - a. Cordon off the area with appropriate signs.

- b. Deactivate HVAC system, unless otherwise noted or directed.
 - c. Protect or remove carpeting, if present.
 - d. Pre-clean work area, as necessary.
 - e. Establish temporary power and lighting.
 - f. Construct critical barriers.
 - g. Construct decontamination enclosure systems.
 - h. Erect polyethylene sheeting on the walls, windows, ceiling and floor, as applicable.
 - i. Establish negative pressure within the work area.
 - j. Request and facilitate a work area preparation inspection from the Contracting Officer.
 - k. If ceiling removal is required, remove asbestos-contaminated ceiling tiles.
 - l. Demolish above ceiling HVAC ductwork, electrical conduit, etc., in accordance with the demolition plans, as applicable. Wrap and seal all such equipment that remains.
 - m. Request and facilitate a second work area preparation inspection from the Contracting Officer following demolition.
 - n. Smoke-test glovebags, as applicable.
- 2. Remove ACM employing wet cleaning methods, HEPA vacuuming and proper work practices.
 - 3. Clean-up work area.
 - 4. Dispose of asbestos-containing waste.
 - 5. After Pre-encapsulation inspection by Contracting Officer, apply encapsulant and remove secondary polyethylene sheeting.

6. After Final Visual inspection by Contracting Officer, clearance sampling to be performed.
7. If clearance sampling fails, reclean and retest.
8. If clearance sampling passes, teardown polyethylene and remainder of containment. Make area available for Post-clearance inspection by Contracting Officer.

J. STORAGE AND DISPOSAL PROCEDURES AND PLAN

The SSHP will be customized for a given abatement action. In general, waste will be accumulated in small quantities inside the work area, in labelled waste bags; the bags will be decontaminated, double-bagged, and sealed, and passed out of the work area.

The bags will be transported to a pre-approved locked and labelled dumpster near the abatement location (typically, in the parking lot of the building where abatement is occurring). At such point as the dumpster is full and a waste pickup from a licensed waste hauler can be arranged, a dumpster inspection will be coordinated with the Contracting Officer.

The waste manifest will be completed and made available for the Contracting Officer's review at the time of the dumpster inspection. Assuming the inspection is satisfactory, the waste will be collected by the project contracted licensed waste hauler and transported to a pre-selected facility licensed to accept asbestos wastes.

Asbestos abatement activities typically generate three waste streams:

- Friable asbestos waste;
- Nonfriable asbestos waste; and
- Nonasbestos waste.

Each waste stream is handled somewhat differently. The friable asbestos waste requires manifesting and licensed landfill disposal. The nonfriable asbestos waste does not require a manifest, however it's handling is still regulated by Federal OSHA, and most landfills require it to be disposed of in a specific area. The nonasbestos waste can be treated as other construction debris, assuming that there are no other hazardous waste constituents.

K. WETTING AGENTS AND ASBESTOS ENCAPSULANT TO BE USED

The SSHP will be customized for a given abatement action. In general, materials meeting the following specifications will be used:

- a. Water based.
- b. Non-flammable with no methylene chloride.
- c. Combined with a tinting agent prior to application. The color and type of tinting agent shall be approved prior to application by the Contracting Officer.
- d. For areas requiring respray of structural steel, a U.L. listed encapsulant will be used with compatibility shown documented in a full-scale E-119 fire test.
- e. To the extent that the information is available concerning replacement products, Montgomery will provide encapsulants compatible with replacement materials, especially mastics and adhesives.
- f. Surfactants will be used on all projects for wetting ACM prior to removal and for maintaining wet conditions in the work area.

L. LOCATION OF LOCAL EXHAUST EQUIPMENT

The SSHP will be customized for a given abatement action. Precise locations of HEPA-filtered negative pressure units (NPU) may be shown on a Figure - Asbestos Regulated Work Areas.

In general, NPUs will be located to provide cross-flow ventilation carrying asbestos fibers away from workers. Placement of NPUs will be made with consideration of the following factors:

1. Air should be not be pulled across worker's breathing zones;
2. Areas of dead air should be avoided;
3. A consistent static pressure differential of at least -0.020" water guage should be maintained across the containment barriers; and
4. A minimum of four air changes per hour should be maintained.

M. PLANNED AIR MONITORING STRATEGIES

Personal air monitoring will be conducted in accordance with OSHA Regulation 29 CFR Part 1926.1101 and DOSH Title 8 CCR Section 1529, including daily, representative, full-shift, breathing zone and 30-minute excursion air samples. Analysis will be by OSHA method ID 160.

Perimeter air monitoring strategies will be customized for each individual abatement action; samples will typically be located at adjacent occupied areas, and/or at areas most likely to be contaminated in the event of a fiber release. Analysis will typically be via the NIOSH method 7400 .

Personal and perimeter air samples will be analyzed by a laboratory which participates in the NIOSH Proficiency Analytical Testing (PAT) Program, with at least four rounds of performance with zero outliers.

Clearance air sampling will be performed as required for individual abatement actions, with analysis by NIOSH method 7400 or Transmission Electron Microscopy (NIOSH method 7402).

N. DETAILED DESCRIPTION OF METHOD TO BE EMPLOYED TO CONTROL SPREAD OF ACM WASTES AND AIRBORNE FIBER CONCENTRATIONS

The SSHP will be customized for a given abatement action, and will detail the containment type, control methods, abatement methods, waste hauler, and disposal site.

O. FIRE AND MEDICAL EMERGENCY PROCEDURES

The SSHP will be customized for a given abatement action, and will detail the following information:

1. Location of nearest telephone for emergency use, and appropriate number to call;
2. Location of nearest medical facilities for emergency use, and best means of transportation (See Figure 2 - Site Map and Medical Facilities Location);
3. Appropriate response for fires/explosions, for physical injuries, and for injuries due to heat;
4. Site-specific reporting requirements for accidents and emergencies; and

5. A map (Figure 3) showing emergency egress from abatement area and building in case of fire; location of fire alarm pull stations; location of fire extinguishers; and general assembly areas.

P. SPECIFIC SECURITY PROCEDURES TO BE USED FOR ASBESTOS REGULATED WORK AREA.

The SSHP will be customized for a given abatement action, depending upon the building's use and occupancy, nature of the project, etc.

APPENDIX F
LEAD-BASED PAINT MANAGEMENT

1007 LEAD-BASED PAINT MANAGEMENT PLAN

I. PURPOSE

To establish guidelines for MWH staff and subcontractors for work involving the demolition, or abatement of lead-based paints.

This document is of a general nature, and does not address specific abatement actions. Upon identification of an abatement action, a site-specific safety and health plan (SSHP) will be developed and tailored to address the hazards and requirements of the action.

II. DISCUSSION

Lead is a heavy metal found in many paints and coatings. Besides its classification as a hazardous waste, lead is toxic when entering the body by breathing or swallowing lead dusts, fumes, or mists. Once in the body, lead enters the blood stream and may be carried to all parts of the body. The body can eliminate some lead, but if there is continued lead exposure, the body absorbs and stores more lead than it can eliminate. This stored lead may cause irreversible damage to cells, organs and whole body processes. After exposure stops, it takes months or even years for all the lead to be removed from the body.

Exposure to lead may affect each person differently. Even before symptoms appear, lead may cause unseen injury to the body. During early stages of lead poisoning, mild symptoms may be overlooked as non-specific medical complaints, including:

Loss of appetite	Joint and muscle aches
Trouble sleeping	Metallic taste
Irritability	Decreased sex drive
Fatigue	Lack of concentration
Headache	Moodiness

Brief intense exposure or prolonged overexposure may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems. Some noticeable medical problems include:

Stomach pains	Tremors
Weakness of extremities	Convulsions or seizures
High blood pressure	Anemia
Nausea	Constipation or diarrhea

Health effects of low level lead exposure to children and pregnant women are more severe than to adults.

Because of these health effects, and because of lead's classification as a hazardous waste, the proper abatement of lead on building surfaces is of the utmost importance.

III. PROCEDURE

It is the policy of MWH to comply at all times with the requirements of the Federal OSHA and EPA lead standards, including treating suspect lead-based paint (LBP) as presumed lead-based paint until sampling is performed to confirm or refute lead content. MWH will utilize an independent CIH to oversee and conduct clearance sampling on all LBP abatement projects.

A. LOCATION OF LBP-CONTAINING COMPONENTS

This section will be customized for each abatement action. LBP locations will be indicated graphically on a figure, and/or in a table format in an attachment to the Lead-Based Paint Management Plan for the abatement action.

B. ABATEMENT METHODS FOR EACH LBP-CONTAINING COMPONENT

This section will be customized for each abatement action. LBP methods will be shown in a table format in an attachment to the Lead-Based Paint Management Plan for the abatement action.

C. MEANS FOR NOTIFYING OCCUPANTS OF PROPOSED WORK SCHEDULES

MWH will use one or more of the following methods of informing occupants and other employers of anticipated work schedules and the locations of lead regulated work areas:

1. Written notices, delivered by US Mail or equivalent means, describing the lead hazard and specifying times and locations that lead regulated areas are anticipated to be established.
2. Written notices, posted in a prominent location in the building.
3. Written notices contained in contract documents supplied to subcontractors on the project.
4. Verbal notice given at community meetings.

D. TRAINING REQUIREMENTS AS REQUIRED BY FEDERAL, STATE, AND LOCAL REGULATIONS

Training requirements vary by state. In general, MWH anticipates providing personnel with the following training:

Role	Training
On-site Supervisor	EPA-accredited Training following Model Accreditation Program for “Project Monitor”
Abatement Worker or Foreman	EPA-accredited Training following Model Accreditation Program for “Worker”
Construction personnel working incidental to or adjacent to lead-based paint hazards	2-hour lead “awareness” training as required by 29 CFR 1926.62
Industrial Hygienist performing Project Design	EPA-accredited Training following Model Accreditation Program for “Project Designer”
Industrial Hygienist performing Survey	EPA-accredited Training following Model Accreditation Program for “Inspector/Assessor”
Industrial Hygiene staff performing air monitoring, project oversight, etc.	EPA-accredited Training following Model Accreditation Program for “Monitor”

E. UNIQUE PROBLEMS ASSOCIATED WITH THE LBP ABATEMENT

The SSHP will be customized for each abatement action. Problems anticipated include the following:

1. Occupied spaces requiring abatement;
2. Close interface with other construction trades required;
3. Presence of other hazardous materials in the work area; and
4. Adverse weather conditions (for external abatement).

F. SKETCH OF LBP REGULATED AREAS AND DECONTAMINATION AREAS

The SSHP will be customized for each abatement action. LBP regulated areas and decontamination facilities will be indicated graphically on a figure, and/or in a table format in an attachment to the Lead-Based Paint Management Plan for the abatement action.

G. EATING, DRINKING, AND SMOKING

The SSHP will be customized for each specific abatement action or project. The locations of areas which are allowable for eating, drinking, and smoking will be shown on a project diagram.

In combination with other signs and warnings required, warning signs will be provided for entries to regulated areas bearing the following information:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

MWH personnel who have been inside a lead regulated area shall decontaminate themselves thoroughly prior to eating, drinking or smoking.

H. SEQUENCING OF LEAD-RELATED WORK

Where necessary for scheduling or occupancy reasons, MWH will phase the abatement work, separating off abatement areas from other areas by means of temporary hard partitions or polyethylene barriers.

For a typical full enclosure work area, the sequence of events is as follows (note that this sequence will vary with individual work zones):

1. Work Area Preparation:
 - a. Cordon off the area with appropriate signs.
 - b. Deactivate HVAC system, unless otherwise noted or directed.
 - c. Protect or remove carpeting, if present.
 - d. Pre-clean work area, as necessary.

- e. Establish temporary power and lighting.
 - f. Construct critical barriers, barricades, polyethylene sheeting, etc. as required by the Project Design.
 - g. Construct decontamination facilities (shower or handwash facilities).
 - h. Erect polyethylene sheeting on the walls, windows, ceiling and floor, as applicable.
 - i. Establish negative pressure within the work area, as applicable.
 - j. Request and facilitate a work area preparation inspection from the Contracting Officer.
- 2. Remove LBP employing wet methods, HEPA vacuuming and proper work practices taught in EPA-accredited training; apply paint removal solvents as applicable.
 - 3. Obtain visual inspection of work surface by Contracting Officer.
 - 4. Clean-up work area and remove polyethylene sheeting, thoroughly HEPA-vacuuming all surfaces.
 - 5. Where applicable, obtain pre-encapsulation inspection by Contracting Officer and apply encapsulant.
 - 6. After Final Visual inspection by Contracting Officer, clearance sampling to be performed.
 - 7. If clearance sampling fails, reclean and retest.
 - 8. If clearance sampling passes, teardown remaining polyethylene and containment barriers. Make area available for Post-clearance inspection by Contracting Officer.

I. PERSONAL PROTECTIVE EQUIPMENT, RESPIRATORY PROTECTION, AND CONTROLS

- **Respiratory Protection:** Selection and use of personal protective equipment varies, depending upon the nature of the abatement work to be performed. Table 1 below shows the assumed exposures for various work classes. Table 2 shows required respiratory protection based upon assumed or measured exposure.

Respiratory protection will be mandatory for all workers inside Activity Class I through III containment areas exceeding the Action Level, and for all workers within a minimum 20 ft. radius of Activity Class I through III activities exceeding the Action Level, for work areas not defined by a full enclosure.

Table 1 - Summary of Abatement Class Activities

Activity Class I (assumes airborne exposure $<500 \mu\text{g}/\text{m}^3$ unless confirmed otherwise)	<ul style="list-style-type: none"> • Spray painting with lead-based paints; • Manual demolition of structures (e.g., drywall, plaster, etc.); • Manual sanding, grinding, needle gunning, chiseling, hammering, wire brushing, milling or scraping of lead-based coatings; • Heat gun removal of any surface coating; and • Power tool cleaning with dust collection systems.
Activity Class II (assumes airborne exposure $>500 \mu\text{g}/\text{m}^3$ unless confirmed otherwise)	<ul style="list-style-type: none"> • Using lead mortar; • Lead Burning; • Rivet Busting; • Power tool cleaning without dust collection systems; • Clean-up of dry abrasives; and • Abrasive blasting enclosure movement and removal.
Activity Class III (assumes airborne exposure $<2,500 \mu\text{g}/\text{m}^3$ unless confirmed otherwise)	<ul style="list-style-type: none"> • Abrasive blasting of any coated surfaces; • Welding on any coated surfaces; • Torching or cutting of any coated surfaces; and • Torch burning of any coated surfaces.

Table 2 - Respiratory Protection for Assumed Exposure (based on Abatement Class Activities) or Actual Exposure (based on Personal Air Monitoring)

Airborne Concentration of Lead or Condition of Use	Required Respirator
Less than or equal to 500 $\mu\text{g}/\text{m}^3$ (10 x PEL), or an unknown Pb exposure level generated by an Activity Class I activity	A half-facepiece, air-purifying respirator equipped with HEPA filters; or A half-facepiece, supplied air respirator operated in demand (negative pressure) mode.
Less than or equal to 1250 $\mu\text{g}/\text{m}^3$ (25 x PEL), or an unknown Pb exposure level generated by an Activity Class II activity	A loosely fitting hood or helmet powered air purifying respirator with HEPA filters; or A hood or helmet supplied air respirator operated in a continuous flow mode - e.g., type CE abrasive blasting respirator operated in continuous flow mode.
Less than or equal to 2500 $\mu\text{g}/\text{m}^3$ (50 x PEL), or an unknown Pb exposure level generated by an Activity Class III activity	A tightly fitting powered air-purifying respirator equipped with HEPA filters; or A full-facepiece, air-purifying respirator equipped with HEPA filters; or A full facepiece supplied air respirator operated in demand mode; or A half facepiece or full facepiece supplied air respirator operated in a continuous-flow mode; or A full facepiece self-contained breathing apparatus (SCBA) operated in demand mode.
Less than or equal to 50,000 $\mu\text{g}/\text{m}^3$ (1,000 x PEL)	A half facepiece supplied air respirator operated in pressure demand or other positive-pressure mode.
Less than or equal to 100,000 $\mu\text{g}/\text{m}^3$ (2,000 x PEL)	A full facepiece supplied air respirator operated in pressure demand or other positive-pressure mode - e.g., type CE abrasive blasting respirators operated in a positive-pressure mode.
Greater than 100,000 $\mu\text{g}/\text{m}^3$ (2,000 x PEL), or fire fighting activity	A full facepiece SCBA operated in pressure demand or other positive-pressure mode.

- **Full Body Protection:** Full body protective clothing, made of non-perforated Tyvek fabric or other fabric that provides an effective particle

barrier, will be worn. Workers will wear hoods covering their hair in the regulated lead work areas at all times. Workers will not wear protective clothing in lieu of street clothing outside the work area, and will leave non-disposable-type protective clothing and footwear in the wash room until the end of the abatement work. Non-disposable protective clothing and footwear may be stored in a sealed and labeled container and reused in lead work area(s); these clothes must not be shaken to remove attached debris, but will be HEPA-vacuumed. Work clothing will be cleaned at least weekly, and daily if airborne exposures exceed $200 \mu\text{g}/\text{m}^3$.

- **Eye Protection:** Eye protection to be worn as required by applicable safety regulations. Eye protection will be at all times within the LBP abatement work areas during all phases of work. A full face piece respirator may be worn to satisfy this requirement. Equipment will conform with ANSI Z87.1-1979. Use of contact lenses with respiratory protection is prohibited.
- **Head Protection:** Hard hats or other head protection as required by applicable safety regulations, conforming with ANSI Z89.1-1981, Class A or B.
- **Foot Protection:** Non-skid footwear to all abatement workers, conforming to ANSI Z41.1-1983, Class 75. This will include disposable shoe coverings, or designated safety shoes that are not to be worn off the job site.
- **Hand Protection:** Protective gloves, where wearing gloves does not pose a safety hazard to the employee. Gloves will include heavy work and impervious over gloves.

At a minimum, a wash-up area will be provided for decontamination, including an equipment room and contiguous clean room where the employees can wash their hands, forearms, face, and neck prior to exiting the clean room.

J. ENGINEERING CONTROLS

The SSHP will be customized for a given abatement action. In general, the following guidelines apply for any given LBP abatement category:

Table 3 - Summary of Engineering Controls for Abatement Class Activities

	Air Monitoring Results Below Action Level	Class I	Class II	Class III
a. wet methods	Yes	Yes	Yes	Yes
b. HEPA vacuum	Yes; shoveling dry & wet sweeping, & brushing can be used only where vacuuming is ineffective	Yes; shoveling dry & wet sweeping, & brushing can be used only where vacuuming is ineffective	Yes; shoveling dry & wet sweeping, & brushing can be used only where vacuuming is ineffective	Yes; shoveling dry & wet sweeping, & brushing can be used only where vacuuming is ineffective
c. prompt clean-up	Yes	Yes	Yes	Yes
d. negative pressure enclosure	N/A	Cordon off within approx. 20 ft. radius of work (negative pressure not required)	Mini-containments and/or full isolation recommended for dust control	Recommended if painted metal surface is torched or welded
e. dropcloths	Yes	Yes	Yes	N/A

Other control methods to consider include:

- local exhaust ventilation with HEPA filtration (particularly for projects involving needle guns, vacuum blasting, or other powered tools);
- general room ventilation via HEPA-filtered negative pressure units (for high exposure activities, combined asbestos and lead projects, and removal conducted in sensitive areas such as hospitals and child-care centers;

K. WORKER EXPOSURE ASSESSMENT PROCEDURES

An initial risk determination may be performed to represent sampling of employees reasonably believed to be exposed to the greatest airborne concentration of lead in the workplace. This will involve personal monitoring of employees who are performing tasks representative of the entire project. During this monitoring, the employees should be assumed to be exposed at the airborne lead levels shown in Table 1, equipped with respiratory protective equipment shown in Table 2, and using control procedures from Table 3.

Alternatively, data may be obtained from projects within the past 12 months during operations conducted under workplace conditions closely resembling the new processes, types of material, control methods, work practices and environmental conditions. MWH will rely on these earlier monitoring results only if the sampling and analytical methods meet the accuracy and confidence levels required under 8 CCR 1532.1.

Work practices are assumed to fall into the categories shown in Table 1. Workers will be equipped with respiratory protective equipment shown in Table 2, and use control procedures from Table 3, throughout the duration of each project.

L. WORK PRACTICE CONTROLS

It is recognized that work practices are essential in maintaining low airborne lead levels and low exposures to workers and the public. Essential work practices which MWH personnel must follow include:

- Removal and cleaning using wet methods;
- Use of HEPA vacuums;
- Good housekeeping practices in the work area; and
- Complete decontamination of personnel and equipment exiting the work area.

If the initial personal sampling show personnel exposures below the Action Level, MWH will conduct personal air measurements weekly thereafter for each job classification. Any results which are greater than the Action Level will be considered indicative of a lapse in work practices. MWH personnel will halt work to investigate potential causes of the elevated results, and to modify work practices to reduce the airborne exposures.

Follow-up monitoring will be performed to verify whether the modified work practices have reduced employee exposures. During this period, respiratory protection shall be used by MWH personnel.

M. HOUSEKEEPING

It is recognized that good housekeeping practices are essential in maintaining low airborne lead levels and low exposures to workers and the public.

Essential housekeeping practices which MWH personnel must follow include:

- Removing LBP waste from floors and other surfaces before it accumulates in large amounts;
- Keeping lead-contaminated equipment, clothing, etc. wrapped and sealed in polyethylene; and
- Controlling water sources to avoid distributing lead-containing liquids.

If increases in airborne lead levels are noted, housekeeping practices will be assessed to verify that they are being performed adequately and completely.

N. HYGIENE FACILITIES

This section will be customized for specific abatement actions. The following are general guidelines.

1. Following determination of abatement class, MWH will install hygiene facilities according to the table below.

Table 4 - Summary of Hygiene Facilities Required for Abatement Class Activities

	Exposure Below the Action Level	Activity Class I	Activity Class II	Activity Class III
Required Hygiene Facilities	Clean change area required with handwashing facilities; shower not mandated; HEPA vacuum garments	Provide shower where feasible and exposure >PEL, otherwise provide handwashing facilities	Provide shower where feasible and exposure >PEL, otherwise provide handwashing facilities	Provide shower where feasible and exposure >PEL, otherwise provide handwashing facilities

2. MWH will provide the decontamination facility with mechanical ventilation (a HEPA-filtration unit) which ensures that potentially lead-contaminated air does not flow from the equipment room or work area into the clean room.
3. For zones requiring showers, MWH will provide shower facilities complying with the California General Industry Safety Order 3366(f). Each shower head will be supplied with hot and cold water adjustable at the tap. The shower enclosure will be constructed to ensure against leakage of any kind. Uncontaminated liquid soap, shampoo and towels will be available.

4. For zones not requiring showers, a contiguous two-chamber facility will be erected with washbucket and disposable towels.
5. Waste water will be filtered through a 1.0 micron pore size filter prior to disposal into the sanitary sewer.
6. For Activity Class II and III Activities, employees exiting regulated areas will first thoroughly wash hands, forearms, face, neck and exposed skin before removing their respirators and entering the clean room. If employees are not expected to reenter the regulated area, then they will fully shower before entering the clean room.
7. For Activity Class I Activities, employees exiting the regulated area will enter the clean room and immediately wash their hands, forearms, face and neck, prior to removing their respirators and final cleanup.
8. MWH personnel will clean all areas of the decontamination facilities, at least daily using HEPA-vacuums or wet methods.
9. No eating, smoking and drinking will occur in proximity to the lead abatement operations. No smoking in or near the abatement zone will be permitted. Abatement workers will decontaminate themselves and appropriate equipment prior to eating, drinking or smoking.

O. MEDICAL SURVEILLANCE AND MEDICAL REMOVAL PROTECTION

Prior to abatement actions, MWH will institute a medical surveillance program for all employees who are or may be exposed to lead at or above the action level, at no cost to the employees. As a minimum, the medical surveillance program will meet the requirements of Title 8, Section 5216 and Section 1532.1 (j) and (k).

Pre-project and follow-up blood lead tests will be provided at no cost to employees as follows:

Table 5 - Blood Lead Test Requirements:

Blood Test Type	Activity Class	Restrictions and Requirements
Pre-project and Post-project	All workers affecting lead-based paints or working within controlled areas	≤30 days before the 1st day of on-site activity; and ≤30 days after the last day of on-site activity
Initial	I through III	if exposure ≥ action level for >30 day period in 12 consecutive months, every 2 months for first 6 months
Follow-up		if exposure ≥ action level, every 6 months after initial 6 months
Follow-up	Following Elevated Blood Lead Levels	if >40 µg/dL, at least every 2 mos. until 2 consecutive samples are <40 µg/dL; and monthly for those removed from site for elevated blood lead during removal period; and annually if at any time in preceding 12 months exposure >40 µg/dL, or exposure >30 µg/m ³ for 30 or more days per year.

Blood lead analysis will be performed by a laboratory approved by OSHA, with an accuracy of ± 15% to a 95% confidence level, or ± 6 µg/dl of whole blood at a 95% confidence level, whichever is greater. Written results and the physician's interpretation will be provided to the employee within 5 calendar days of receipt by MWH.

Medical examinations shall include the following minimum elements:

- A detailed medical and occupational history including, but not limited to, past lead exposures (both occupational and non-occupational), past gastrointestinal, hematologic, renal, cardiovascular, neurological and reproductive problems, and personal habits, such as smoking, alcohol use and hygiene;
- A physical examination, including, but not limited to, evaluation of the teeth, gums, the hematologic, gastrointestinal, renal,

cardiovascular, and neurological systems, blood pressure, and, if the employee must wear a respirator, pulmonary function;

- Laboratory analyses for blood lead, hemoglobin, zinc protoporphyrin, blood urea nitrogen, serum creatinine, routine urinalysis with microscopic examination, and pregnancy testing or laboratory evaluation of male fertility, if requested by the employee; and
- Additional evaluations as determined by the examining physician.

P. SAMPLING, TESTING, AND ANALYTICAL METHODS TO BE USED

The SSHP will be customized for a given abatement action, depending upon the nature of the project. The lead-based paint management plan will indicate a schedule of sample types, locations, frequency, etc.

The following are general guidelines for sample and analysis methods:

1. Environmental air sampling - for abatement actions where this is required, MWH will collect samples at the perimeter of the lead regulated area, or in adjacent occupied areas, or in areas considered likely to be contaminated by airborne lead emissions from the work area. This sampling will be conducted via NIOSH method 7082, typically on a daily basis.
2. Dust wipe sampling may be conducted at various stages in the project - preabatement (to establish background lead levels); during abatement (to monitor housekeeping and work practices effectiveness); and post-abatement, as a form of clearance test. Methodology used for wipe sampling will be that detailed in the HUD document *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* (1995).
3. Waste characterization testing will be conducted of segregated waste streams from an abatement activity. In California, a total lead concentration test is first performed (total threshold limit concentration, TTLC); depending upon results, a soluble lead concentration test is then performed (soluble threshold limit concentration, STLC). A Federal EPA-mandated leachable lead test (toxicity characteristic leaching protocol, TCLP) may or may not be required, depending upon the final fate of the lead waste. TTLC and STLC are defined in the California Code of Regulations Title 22 document.
4. For other states, TCLP is the defining test factor for the waste. This protocol is defined in Code of Federal Regulations Title 40 Chapter 261.

Q. FIRE AND MEDICAL EMERGENCY PROCEDURES

The SSHP will be customized for a given abatement action, and will detail the following information:

1. Location of nearest telephone for emergency use, and appropriate number to call;
2. Location of nearest medical facilities for emergency use, and best means of transportation;
3. Appropriate response for fires/explosions, for physical injuries, and for injuries due to heat;
4. Site-specific reporting requirements for accidents and emergencies; and
5. A map showing emergency egress from abatement area and building in case of fire; location of fire alarm pull stations; location of fire extinguishers; and general assembly areas.

IV. REFERENCES

A. UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (September 1996) Safety and Health Requirements Manual

CEGS-02090 (Apr. 1994) Specifications for Lead-Based Paint Removal

B. AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

Pub #4545 (1991) OSHA Analytical Methods Manual

ACGIH-03 (1986) Guidelines to the Selection of Chemical Protective Clothing.

C. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z9.2 (1979; R 1991) Fundamentals Governing the Design and Operation of Local Exhaust Systems

D. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 1331 (1989) Surface and Interfacial Tension of Solutions of Surface-Active Agents

ASTM D3335 (1984; R 1991) Low Concentrations for Lead, Cadmium, and Cobalt in Paint by Atomic Absorption Spectroscopy

ASTM D 4397 (1984; R 1989) Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications

ASTM E 84 (1989a) Surface Burning Characteristics of Building Materials

ASTM E 119 (1988) Fire Tests of Building Construction and Materials

E. CODE OF FEDERAL REGULATIONS (CFR) (STATE and LOCAL REGULATIONS ARE INCLUDED BY REFERENCE)

29 CFR 1910 Occupational Safety and Health Standards

29 CFR 1910.1020 Access to Employee Exposure and Medical Records

29 CFR 1910.133 Eye and Face Protection

29 CFR 1910.134 Respiratory Protection

29 CFR 1926 Safety and Health Regulations for Construction

29 CFR 1926.21 Safety Training and Education

29 CFR 1926.51 Sanitation

29 CFR 1926.55 Gases, Vapors, Fumes, Dusts, and Mists

29 CFR 1926.57 Ventilation

29 CFR 1926.59 Hazard Communication

29 CFR 1926.62 Lead

29 CFR 50 Appendix G, National Ambient Air Quality Standard for Lead

30 CFR 11 Respiratory Protective Devices; Tests For Permissibility; Fees

40 CFR 260 Hazardous Waste Management Systems: General

40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Generators of Hazardous Waste
40 CFR 263	Transporters of Hazardous Waste
40 CFR 264	Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 268	Land Disposal Restrictions
49 CFR 172	Hazardous Materials Tables and Hazardous Materials Communications Regulations
49 CFR 178	Shipping Container Specification

F. FEDERAL ACQUISITION REGULATION (FAR)

FAR Clause 52.236-13 Accident Prevention

G. NATIONAL INSTITUTE FOR OCCUPATIONAL HEALTH AND SAFETY (NIOSH)

NIOSH Method 7082 Lead

NIOSH Pub No. 87-108 (1987) Respirator Decision Logic.

H. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

OSHA Booklet 3126 Working with Lead in the Construction Industry

I. STEEL STRUCTURES PAINTING COUNCIL (SSPC)

SSPC 6I Guide for Containing Debris Generated During Paint Removal Operations

J. UNDERWRITERS LABORATORIES INC. (UL)

UL-05 (1991; Supple) Fire Resistance Directory

UL 586 (Oct. 18, 1990; 7th Ed) High-Efficiency, Particulate, Air Filter Units

K. U.S. HOUSING AND URBAN DEVELOPMENT (HUD)

Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1995)